ATLANTIC PROVINCES ECONOMIC COUNCIL

Scotiabank®

Report Card

January 2010

Atlantic Canada's Growing ICT Industry

Atlantic Canada's information and communication technologies (ICT) industry is an increasingly important part of the region's economy, contributing an estimated $2.65 billion to Atlantic Canada's GDP in 2008. Despite some consolidation over the last five years, there are over 2,000 firms in the region's ICT industry. Almost 30% of ICT employees are in the telecommunications sector, led by companies such as BellAliant, Eastlink and Rogers. Other firms are involved in software development (such as Longtail Studios and HB Studios) or in providing ICT services (such as Keane, Research in Motion and Innovatia). Multimedia and gaming, e-learning, e-health, ocean technology and defence-related software are some of the region's strengths.

The ICT sector in Atlantic Canada is more service-based than nationally, but Atlantic Canada's international exports of manufactured ICT products totaled $188 million in 2008, with a majority coming from Nova Scotia firms ($138 million). Leading ICT manufacturers in the region include Nautel and Rutter.

Growing ICT investment has helped to support the expansion of Atlantic Canada's ICT industry. The region's ICT industry grew nearly twice as fast as the overall economy between 2003 and 2008. As a result, the ICT sector has increased its share of the region's GDP from 2.5% in 1997 to 3.7% in 2008. Nova Scotia has the largest ICT industry in Atlantic Canada, accounting for 4.3% of GDP (compared with 4.4% nationally) and trails only Ontario and Quebec in importance. The Atlantic ICT industry has grown almost as fast as the Canadian ICT industry, expanding by 109% between 1997 and 2008, compared with 115% nationally.

ICT Workforce

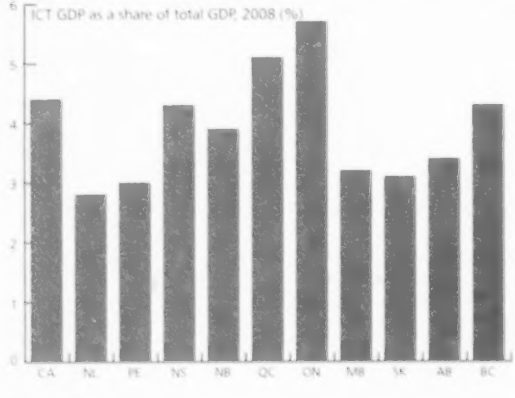
The ICT industry is a high-wage industry with incomes 20% higher than average in Atlantic Canada. Employment in the region's ICT sector totaled almost 32,000 at the time of the 2006 Census. Statistics Canada's Labour Force Survey is not detailed enough to provide annual employment estimates for the whole ICT industry but estimates for three sub-industries (accounting for about 75% of total ICT employment) show that Atlantic ICT employment has increased by 50% over the last two decades. Employment is heavily concentrated in urban areas – about 70% of the ICT labour force is in Atlantic Canada's six largest cities (Halifax, Saint John, Moncton, Fredericton, St. John's and Charlottetown).

Several firms in the ICT industry have reported difficulties attracting skilled workers – a challenge that may intensify over the next decade. The unemployment rate in the ICT industry is very low (about 5% at the time of the 2006 Census). The Atlantic ICT industry has a young workforce with 40% under 35 years of age, compared with an average 34% for other industries. But the number of young people entering the region's labour force will decline over the next decade. The ICT sector also relies on a highly skilled workforce, with almost 30% of Atlantic employees having a university degree. Yet the number of students graduating from computer science programs at Maritime universities has fallen by 50% since 2005, and some of these graduates leave for higher salaries elsewhere in the country.

Atlantic Canada's ICT Industry Growing Rapidly

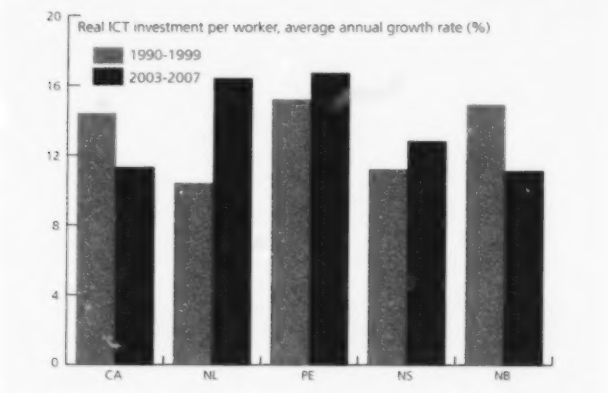
Source: Statistics Canada

Relatively Small ICT Industry in Atlantic Canada



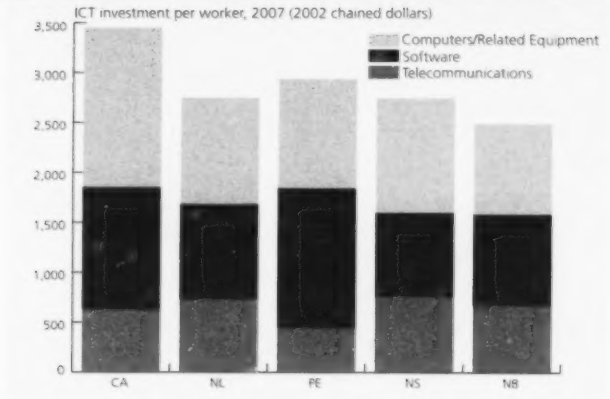
Source: Statistics Canada

Rapid Growth in ICT Investment



Sources: Centre for the Study of Living Standards, APEC

Lower Level of ICT Investment in Atlantic Canada



Source: Centre for the Study of Living Standards.

Lagging ICT Investment

The vitality of the Atlantic Canada's ICT industry is important as a key growth industry, but a broader issue relates to the overall adoption of ICT throughout the region's economy. Studies have shown that investments in ICT are an important driver of productivity growth and have helped spur the globalization trends of the last two decades.

Investments in ICT are helping Atlantic companies in all sectors of the economy to improve their competitiveness. For example, one Atlantic company is using Voice over Internet Protocol (VoIP) technology to improve their productivity and customer service by connecting remote offices to reduce call wait times. Other firms in the region are using ICT investments to monitor daily productivity improvements on the factory floor and to provide detailed sales data to reallocate store space to better-selling product lines. New mapping technologies are also being used to help identify new resources while reducing environmental impacts.

Despite these examples of ICT adoption, Atlantic Canada as a whole is lagging the nation in terms of its ICT investments. The Atlantic provinces invested an estimated $1.85 billion in ICT in 2007. This amounts to $1,690 per worker, only 80% of the national rate of $2,110 in ICT investment per worker. Atlantic Canada began to fall behind the rest of Canada in its ICT investments during the late 1980s and, by 2000, the region's rate of ICT investment per worker had fallen to 70% of the national level. After being slower to adopt new ICT, the region now seems to be catching up somewhat, particularly in terms of investments in telecommunications and software. Since 2003, the rate of total ICT investment per worker in Atlantic Canada has grown at an average rate of 13% per year, outperforming the 11.3% national pace. This catch-up has been most noticeable in Newfoundland and Labrador and Prince Edward Island, which have had the fastest rates of growth in ICT investment per worker in Canada since 2003.

The largest component of ICT investment, which now accounts for about 40% of Atlantic ICT investment, is in computers and related equipment. This is the fastest-growing segment, with investment per worker on computer equipment growing at 25% per year since 2003 in Atlantic Canada. However, the region is still investing about 30% less per worker than nationally. The Atlantic region is also underinvesting in software, which now represents about 35% of total ICT investment, but is investing in telecommunications equipment at a slightly higher rate than nationally.

All four Atlantic provinces are currently trying to facilitate the use of ICT by expanding broadband infrastructure in their provinces. With the help of private partners, the three Maritime provinces expect to have 100% broadband coverage by the end of 2010 while Newfoundland and Labrador is planning to spend $350 million over the next three years to improve access to high-speed networks including a broadband link to Labrador. The federal government is also investing $225 million over three years to expand broadband coverage in Canada.

Conclusion

Atlantic Canada's relatively small ICT sector is making an important contribution to the region's growth. Of greater concern is the relatively low level of ICT investment per worker throughout the broader Atlantic economy. The reasons for this slower pace of ICT adoption are not clear. Although the region has reduced the size of this ICT investment gap relative to Canada since 2000, Atlantic Canada must continue to catch up or risk further erosion of its productivity performance compared with Canada.

Report Card **is published four times per year by the Atlantic Provinces Economic Council (APEC) and is sponsored by The Bank of Nova Scotia[®]. Information on *Report Card* and/or on the Atlantic Provinces Economic Council is available from:**

5121 Sackville Street, Suite 500, Halifax N.S., B3J 1K1

(902) 422-6516 (phone), (902) 429-6803 (fax), info@apec-econ.ca (e-mail), www.apec-econ.ca (website)

[1] This report is prepared by the Atlantic Provinces Economic Council (APEC) for the use of its members. While the information is from sources believed reliable, neither the information nor the analysis expressed herein shall be taken as a representation for which The Bank of Nova Scotia, Scotia Capital Inc., APEC or any of their employees incur any responsibility.

[®]Registered Trademark of The Bank of Nova Scotia